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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/592,931

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EXAMINER

LEE, LESLIE A

ART UNIT

PAPER NUMBER

4184

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/592,931	Applicant(s) RUTSCHMANN ET AL.	
	Examiner LESLIE A. LEE	Art Unit 4184	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 7-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/15/2006, 10/13/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claim 7 is objected to because of the following informalities: Claim 7 line 4 states an “oil suction lien”, which should be an "oil suction line". Appropriate correction is required.

2. Claim 7 is objected to because of the following informalities: Terminology within the claim is inconsistent. Claim 7, line 2 states an “oil suction space”, and line 3 states a "sump".

The submitted specification states “an oil suction space 12 (dry sump)” (paragraph 13, line 9), and as such the “sump” in claim 7 has been interpreted as the "oil suction space" of claim 7.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 7-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claim 7 is indefinite because it cannot be determined from the specification what the “oil supply space” is. For the purposes of this Office Action, the “oil supply space” is interpreted to be the collecting space 18, and the “oil supply container” is interpreted to be the collecting space 16. All claims depend from Claim 7 and inherit the indefiniteness.

5. Claim 7 recites the limitation "the oil supply space" in line 5. There is insufficient antecedent basis for this limitation in the claim.

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6. Claim 12 recites the limitation "the dry sump space" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 7, 8, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spangenberg (US Patent No. 2,443,875), and further in view of Krotky et al. (US Patent No. 5,842,447).

b. Re Claim 7, Spangenberg teaches: Internal combustion engine (engine a, fig 1) using dry-sump-principle pressure lubrication, comprising a crankcase (crankcase a1, fig 1) having an oil suction space (sump 21, fig 1) in a lower part thereof so that lubricant oil is conveyed out of a sump through an oil return pump (scavenging pump 24, fig 1) provided with an oil suction line to an oil supply

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container (container 10, fig 1) while the lubricant oil in at least one of the oil supply container and the oil supply space (sump 22, fig 1) is conveyed to consumers via a main delivery pump (oil pump 12, fig 1).

- i. Spangenberg does not teach: wherein an annular space is arranged around cylinder groups as part of the lubricant oil conveying to the oil supply container.
- ii. Krotky et al. teaches an open deck cylinder block (2, fig 2) with an oil jacket (8, fig 2) surrounding the cylinder tubes (3,4,5, fig 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the engine disclosed in Spangenberg with the cylinder block disclosed in Krotky et al. because an oil jacket surrounding a cylinder wall minimizes temperature gradients by ensuring that the cylinder wall is substantially enveloped by a layer of flowing lubricating oil.
- c. Re Claim 8, Spangenberg teaches: wherein the engine is an opposed-cylinder engine (column 1, line 53).
- d. Re Claim 11, Spangenberg teaches: wherein the oil supply space (sump 22, fig 1) is integrated into the crankcase (crankcase a1, fig 1).
- e. Re Claim 12, Spangenberg teaches: wherein oil supply space (sump 22, fig 1) is integrated into the crankcase (crankcase a1, fig 1) so as to be separated from the dry sump space (container 10, fig 1) by one or more bulkhead walls.

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f. Re Claim 13, Spangenberg does not teach: wherein the crankcase is of open deck configuration.

iii. Krotky et al. teaches an open-deck cylinder block (column 1, line 11). This feature of the engine will necessarily be included when the engine of Krotky et al. is combined with the engine of Spangenberg, as discussed above.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spangenberg (US Patent No. 2,443,875) as modified by Krotky et al. (US Patent No. 5,842,447) as applied to claim 7 above, and further in view of Udagawa (US Patent No. 5,215,316).

g. Re Claim 9, Spangenberg as modified by Krotky et al. teaches: wherein the annular space (oil jacket 8, fig 2) is open to a crank space (lower side 10, fig 3).

iv. Spangenberg as modified by Krotky et al. does not teach: and is gasket-sealed.

v. Udagawa teaches a gasket (A, fig 3) that seals an open-deck cylinder block. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the gasket of Udagawa with the cylinder block of Spangenberg as modified by Krotky et al. because Udagawa states that the gasket securely seals the open-deck type engine (column 1, lines 63-65).

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spangenberg (US Patent No. 2,443,875) as modified by Krotky et al. (US Patent No. 5,842,447) as applied to claim 7 above, and further in view of Edwards (US Patent NO. 2,575,315).

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- h. Re Claim 10, Spangenberg as modified by Krotky et al. does not teach: wherein the annular space is vented.
- vi. Edwards teaches an engine (10, fig 1) with an air-oil separator (20, fig 1) with a tube (26, fig 1) to vent air to the atmosphere. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the tube of Edwards with the oil jacket of Spangenberg as modified by Krotky et al. because Edwards states that the tube is effective for venting the engine casing to the ambient air to break up foam (column 4, lines 2-4).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Olmr (US 5,333,575) teaches an oil jacket surrounding a cylinder wall which minimizes temperature gradients by ensuring that the cylinder wall is substantially enveloped by a layer of flowing lubricating oil. Katsumoto (US 4,813,408) teaches an oil jacket surrounding a cylinder.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LESLIE A. LEE whose telephone number is (571)270-5927. The examiner can normally be reached on Monday - Thursday 7:30 - 5, Friday 7:30-4, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jared Fureman can be reached on (571)272-2391. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. A. L./
Examiner, Art Unit 4184

/Jared J. Fureman/
Supervisory Patent Examiner, Art Unit
4184

December 10, 2008